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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,507	07/16/2003	Robert Daniel McCarthy	90235	8472
24628	7590	04/20/2006	EXAMINER	
WELSH & KATZ, LTD 120 S RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606			GLENN, KIMBERLY E	
			ART UNIT	PAPER NUMBER
			2817	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/620,507

Applicant(s)

MCCARTHY ET AL.

Examiner

Kimberly E. Glenn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-17 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/8/03</u> .  | 6) <input type="checkbox"/> Other: ____.                                    |

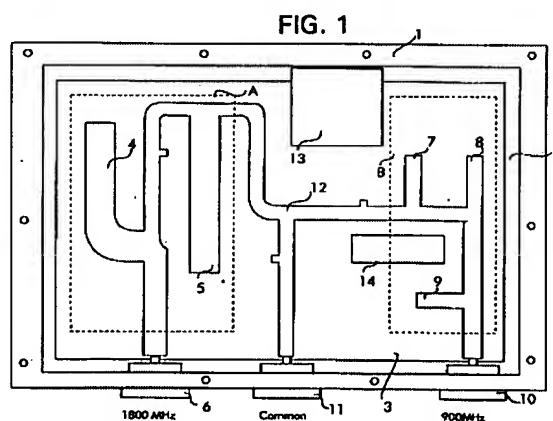
**DETAILED ACTION*****Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pelz et al US Patent 6,118,355 (of record) and Sinsky et al US Patent 6,898,214.

Pelz et al disclose a dual band combiner comprising a common port 11, a first and second port (6 and 10) and a first and second filters (A and B). The common port 11 is connected to a common line. Two transmission lines branch off from the common line and connect to the first and second filters (A and B). The combiner is formed in a microstrip configuration.



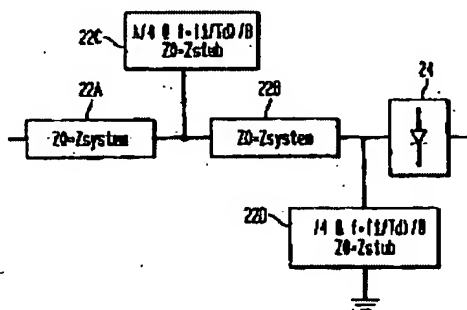
With regards to the limitations recited in claims 4-7, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to

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be used does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations.

Thus, Pelz is shown to teach all the limitations of the claims with the exception of the filters being notch filter having a least one short circuited stub and a least one open circuited stub.

Sinsky et al teaches in figure 1, a notch filter comprising of a two 50 ohms length (quarter wavelength) of the transmission lines 22A and 22B and two one quarter wavelength stubs 22C and 22D. Stub 22C is opened ended while stub 22D is shorted ended.



One of ordinary skill in the art, at the time of the invention would have found to obvious to replace both the first and second filters of Pelz et al with a notch filter as taught by Sinsky et al since take notice of the equivalency of the filter of Pelz et al and the notch filter of Sinsky et al for their use in the communication art and the selection any of these known equivalents to provide a desired filter range would be within the level ordinary skill in the art.

#### ***Allowable Subject Matter***

Claims 8-17 allowed.

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The following is a statement of reasons for the indication of allowable subject matter: With regards to claims 8-17, the prior art of record does not disclose or fairly teach the first of one stub having a length  $n\lambda/4$  and a second one of the stub having a length  $m\lambda/4$  wherein  $n$  and  $m$  are different integers.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Edwards et al US Patent 5,180,999, Heikkila et al US Patent 5,525,940, Pitta et al US Patent 5,652,599, Rausher US Patent 6,107, 898, Sims, III US Patent 6,320,478, Fourtet et al US Patent 6,625,470, Weller et al US Patent 6,657,518, Gaukel et al US Patent 6,812,808, Nation US Patent 6,972,637.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E. Glenn whose telephone number is (571)-272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

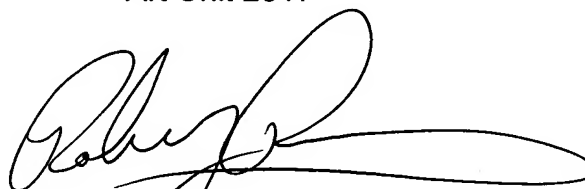
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimberly E Glenn  
Examiner  
Art Unit 2817

4/13/06 keg

A handwritten signature in black ink, appearing to read 'Robert Pascal', with a long horizontal flourish extending to the right.

**Robert Pascal**  
Supervisory Patent Examiner  
Technology Center 2800